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EXAMINER	
KURTZ, BENJAMIN M	
ART UNIT	**PAPER NUMBER**
1723	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/762,095	SCHIPPER, AARON	
	Examiner	Art Unit	
	Benjamin Kurtz	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 February 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,5 and 21-59* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,5 and 21-59* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claim 55 is objected to because of the following informalities: There is a grammatical error and it is assumed claim 55 should read. "...the inner cavity of **the** shell has..." Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 43, 48, 49, 53 and 58 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 43, 49 and 53 the specification does not indicate the outlet being substantially devoid of flow restrictions. The addition of a flow restrictor to the outlet is not precluded by the description and the description does not provide support for this negative limitation.

Regarding claim 48 and 58, the specification fails to teach the wire mesh tubes are spaced apart from an inner wall of the shell. Paragraphs 24, 28, 34 and 35 indicate the wire mesh tubes are tightly packed in the shell and are held together by the inner wall of the shell.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 45, 51 and 55 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear if the individual diameters of the wire mesh tubes are substantially less than the interior diameter of the inner cavity or if the combination of the diameters are less than the interior diameter of the inner cavity. For examination purposes the individual diameters of the wire mesh tubes are treated as being less than the interior diameter of the inner cavity.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 21, 24, 28, 31-34, 36 and 41-58 are rejected under 35 U.S.C. 102(b) as being anticipated by Williamson et al. US 5 443 724.

Regarding claim 1, Williamson teaches an apparatus comprising: a shell (12) having an inlet (the tube on the right hand side of fig. 4, adjacent to (18)), an outlet (34), and an inner cavity in fluid communication with each of the inlet and the outlet, and at least one elongate coalescing medium assembly (20) disposed with the cavity of the shell, each coalescing medium assembly including a plurality of wire mesh tubes oriented substantially parallel to each other, each wire mesh tube having ends, a

longitudinal axis extending between the ends, and a side wall extending between the ends (fig. 4, col. 8, lines 59-60, col. 17, lines 65-67).

Regarding claims 27, 28, 43-45 and 48, Williamson further teaches the ends of each wire mesh tube are positioned at first and second longitudinal positions along the longitudinal axis, and the outlet has a longitudinal position between the first and second longitudinal positions of the ends (fig. 4); each coalescing medium assembly further includes a coupling element surrounding the plurality of wire mesh tubes (col. 16, lines 23-26); the outlet is substantially devoid of flow restrictions (fig. 4); the inlet has a minimum cross-sectional area of flow and the outlet has a minimum cross-sectional area of flow that is substantially equal to the minimum cross-sectional area of flow of the inlet (fig. 4); the inner cavity of the shell has an interior diameter and the plurality of wire mesh tubes have diameters and are substantially less than the interior diameter of the inner cavity (fig. 4); and the wire mesh tubes are spaced apart from an inner wall of the shell (fig. 4).

Regarding claims 46 and 47, how the flow of fluid enters the wire mesh is a process step and does not further structurally limit the apparatus; the velocity of the flow of fluid being greater at the inlet than in the shell is also a process step and does not further structurally limit the apparatus.

Regarding claim 21, Williamson teaches an apparatus comprising: a shell (12) having an inlet (the tube on the right hand side of fig. 4, adjacent to (18)), an outlet (34) and an inner cavity in fluid communication with each of the inlet and the outlet, and a plurality of tubes (20) positioned within the inner cavity of the shell such that the tubes

are oriented substantially parallel to each other, each of the tubes having a longitudinal axis, and at least one of the tubes having a surface with a plurality of apertures, and an air vent (fig. 4, col. 13, lines 49-52).

Regarding claims 24, 49 and 50, Williamson further teaches the shell further comprises a bottom section including an aperture (14) (fig. 4); the outlet is substantially devoid of flow restrictions (fig. 4); the inlet has a minimum cross-sectional area of flow and the outlet has a minimum cross-sectional area of flow that is substantially equal to the minimum cross-sectional area of flow of the inlet (fig. 4).

Regarding claim 31, Williamson teaches an apparatus comprising: a shell (12) having an inlet (14), an outlet (24), and an inner cavity in fluid communication with the inlet and the outlet, and at least one elongate coalescing medium assembly disposed within the inner cavity of the shell, each coalescing medium assembly including, at least one elongate core element (center tube fig. 3b), and a plurality of wire mesh tubes (20), each of the wire mesh tubes having a longitudinal axis, the wire mesh tubes cooperating to define at least one interior space therebetween, and the at least one elongate core element being positioned within the interior space in an orientation substantially parallel to the plurality of wire mesh tubes (fig. 4, col. 8, lines 59-60, col. 17, lines 65-67).

Regarding claims 32-34 and 51, Williamson further teaches an end cap including at least one recess, an end of each of the elongate core elements being received in a respective one of the recesses (fig. 4); the elongate core element comprises a cylindrical tube (fig. 3b, 4); the wire mesh tubes are arranged in a substantially circular pattern when viewed along the longitudinal axes of the wire mesh tubes such that each

wire mesh tube engages two adjacent ones of the wire mesh tubes (fig. 3b); and the inner cavity of the shell has an interior diameter and the plurality of wire mesh tubes have diameters and are substantially less than the interior diameter of the inner cavity (fig. 4).

Regarding claim 52, how the flow of fluid enters the wire mesh is a process step and does not further structurally limit the apparatus.

Regarding claim 36, Williamson teaches an apparatus comprising: a shell (12) having an inlet (the tube on the right hand side of fig. 4, adjacent to (18)), an outlet (34), and an inner cavity in fluid communication with each of the inlet and the outlet, and at least one elongate coalescing medium assembly disposed within the inner cavity of the shell, each coalescing medium assembly including a plurality of wire mesh tubes oriented substantially parallel to each other, each wire mesh tube having ends and a longitudinal axis extending between the ends (fig. 4, col. 8, lines 59-60, col. 17, lines 65-67). The direction of the flow of fluid is a process step and does not further structurally limit the apparatus.

Regarding claims 37, 41, 42 and 53-58, Williamson further teaches the ends of each wire mesh tube are positioned at first and second longitudinal positions along the longitudinal axis, the outlet has a longitudinal position between the first and second longitudinal positions of the ends (fig. 4); the at least one coalescing medium assembly further comprises at least one elongate core element (center tube fig. 3b) oriented substantially parallel to the plurality of wire mesh tubes (fig. 3b); each wire mesh tube includes a sidewall extending between the ends (fig. 4), how the liquid enters and exits

the tubes is a process step and does not further structurally limit the apparatus; the outlet is substantially devoid of flow restrictions (fig. 4); the inlet has a minimum cross-sectional area of flow and the outlet has a minimum cross-sectional area of flow that is substantially equal to the minimum cross-sectional area of flow of the inlet (fig. 4); the inner cavity of the shell has an interior diameter and the plurality of wire mesh tubes have diameters and are substantially less than the interior diameter of the inner cavity (fig. 4); and the wire mesh tubes are spaced apart from an inner wall of the shell (fig. 4).

Regarding claims 56 and 57, how the flow of fluid enters the wire mesh is a process step and does not further structurally limit the apparatus; the velocity of the flow of fluid being greater at the inlet than in the shell is also a process step and does not further structurally limit the apparatus.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 21-23, 27-29, 31-38, 41-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacDuff US 6 893 485 in view of Elmi US 5 500 132.

Regarding claim 1, MacDuff teaches an apparatus for removing air or debris from a flow of liquid, the apparatus comprising: a shell (40) having an inlet (40c), and outlet (40b), and an inner cavity in fluid communication with each of the inlet and outlet, and an elongate coalescing medium assembly (17) disposed within the cavity of the shell

the assembly having a wire mesh tube having ends, a longitudinal axis extending between the ends and a side wall extending between the ends (fig. 3, col. 4, lines 10-25) MacDuff does not teach the coalescing medium assembly including a plurality of wire mesh tubes. Elmi teaches a coalescing medium assembly including a plurality of perforated tubes oriented substantially parallel to each other (fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the plurality of tubes as taught by Elmi because multiple tubes provides for the lighter material that did not coalesce on the first tube to contact subsequent tubes (col. 4, lines 34-43).

Regarding claims 27, 43, 44 and 48, MacDuff further teaches the ends of each wire mesh tube are positioned at first and second longitudinal positions along the longitudinal axis, and the outlet has a longitudinal position between the first and second longitudinal positions of the ends (fig. 3); the outlet is substantially devoid of flow restrictions (fig. 3); the inlet has a minimum cross-sectional area of flow and the outlet has a minimum cross-sectional area of flow that is substantially equal to the minimum cross-sectional area of flow of the inlet (fig. 3); and the wire mesh tube is spaced apart from an inner wall of the shell (fig. 3).

Regarding claim 45, MacDuff teaches the inner cavity of the shell has an interior diameter (fig. 3). Elmi teaches a plurality of coalescing tubes each having a diameter (fig. 2). The combination of the plurality coalescing tubes of Elmi within the shell of MacDuff would inherently have the diameters of the plurality of tubes be less than the interior diameter of the shell in order for the plurality of tubes to fit.

Regarding claims 28 and 29, Elmi further teaches the coalescing medium assembly further includes a coupling element (the cubic frame) that surrounds and holds together the plurality of tubes (fig. 2); and Elmi further teaches the coalescing medium assembly includes a band wrapped around the coupling element and holding the coupling element in engagement with the plurality of wire mesh tubes (fig. 2).

Regarding claims 46 and 47, how the flow of fluid enters the wire mesh is a process step and does not further structurally limit the apparatus; the velocity of the flow of fluid being greater at the inlet than in the shell is also a process step and does not further structurally limit the apparatus.

Regarding claim 21, MacDuff teaches an apparatus for removing air or debris from a flow of liquid, the apparatus comprising: a shell (40) having an inlet, an outlet, and an inner cavity in fluid communication with each of the inlet and the outlet, and a tube positioned within the inner cavity of the shell, the tube having a longitudinal axis having a surface with a plurality of apertures and an air vent (28) positioned to release air that is removed from the flow of liquid by the tube (fig. 3). MacDuff does not teach a plurality of tubes in the cavity of the shell. Elmi teaches a plurality of tubes oriented substantially parallel to each other, each tube having a longitudinal axis and the tubes having a surface with a plurality of apertures (fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the plurality of tubes as taught by Elmi because multiple tubes provides for the lighter material that did not coalesce on the first tube to contact subsequent tubes (col. 4, lines 34-43).

Regarding claims 22, 23, 49 and 50, MacDuff further teaches the flow of liquid flows into and out of the tubes in a direction substantially transverse to the longitudinal axis of the tube (fig. 3); the air vent is positioned above the tube (fig. 3); the outlet is substantially devoid of flow restrictions (fig. 3); and the inlet has a minimum cross-sectional area of flow and the outlet has a minimum cross-sectional area of flow that is substantially equal to the minimum cross-sectional area of flow of the inlet (fig. 3).

Regarding claim 31, MacDuff teaches an apparatus for removing air or debris from a flow of liquid, the apparatus comprising: a shell (40) having an inlet, and outlet, and an inner cavity in fluid communication with the inlet and the outlet, and one elongate coalescing medium assembly (17) disposed within the inner cavity of the shell, the coalescing medium assembly including: an elongate core element. MacDuff does not teach a plurality of wire mesh tubes. Elmi teaches a plurality of tubes having a longitudinal axis, the tubes cooperating to define an interior space therebetween, and an elongate core element being positioned with the interior space oriented substantially parallel to the plurality of tubes (the center tube is the elongate core element) (fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the plurality of tubes as taught by Elmi because multiple tubes provides for the lighter material that did not coalesce on the first tube to contact subsequent tubes (col. 4, lines 34-43).

Regarding claims 32 and 33, MacDuff further teaches an end cap (the upper part of (40)) including a recess where an end of the elongate core element is received in the

recess (fig. 3); and MacDuff and Elmi teach the elongate core element comprises a cylindrical tube (fig. 2, both references).

Regarding claim 34, Elmi teaches the plurality of tubes but does not teach the tubes arranged in a substantially circular pattern when viewed along the longitudinal axis. It would have been obvious to one of ordinary skill in the art at the time the invention was made to arrange the tubes in a circular pattern so the plurality of tubes will better fit within the shell as taught by MacDuff having a circular shape.

Regarding claim 35, MacDuff further teaches the wire mesh tube having substantially horizontal wires and interconnected substantially vertical wires (fig. 2).

Regarding claim 51, MacDuff teaches the inner cavity of the shell has an interior diameter (fig. 3). Elmi teaches a plurality of coalescing tubes each having a diameter (fig. 2). The combination of the plurality coalescing tubes of Elmi within the shell of MacDuff would inherently have the diameters of the plurality of tubes be less than the interior diameter of the shell in order for the plurality of tubes to fit.

Regarding claim 52, how the flow of fluid enters the wire mesh is a process step and does not further structurally limit the apparatus.

Regarding claim 36, MacDuff teaches an apparatus for removing air or debris from a flow of liquid, the apparatus comprising: a shell (40) having an inlet, and outlet, and an inner cavity in fluid communication with the inlet and the outlet, and one elongate coalescing medium assembly (17) disposed within the inner cavity of the shell, the assembly comprising a wire mesh tube having a longitudinal axis, where the flow of liquid flows in a direction substantially transverse to the longitudinal axis of the mesh

tube (fig. 3). MacDuff does not teach a plurality of wire mesh tubes. Elmi teaches a plurality of tubes oriented substantially parallel to each other, each tube having a longitudinal axis extending between the ends (fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the plurality of tubes as taught by Elmi because multiple tubes provides for the lighter material that did not coalesce on the first tube to contact subsequent tubes (col. 4, lines 34-43).

Regarding claims 37 and 38, MacDuff further teaches the ends of the wire mesh tube is positioned at first and second longitudinal positions along the longitudinal axis, and the outlet has a longitudinal position between the first and second longitudinal positions of the ends (fig. 3); and an air vent positioned above the tube (fig. 3).

Regarding claim 41, Elmi teaches the plurality of coalescing tubes comprising at least one elongate core element oriented substantially parallel to the plurality of tubes (the tube at the center of the bundle (fig. 2)).

Regarding claim 42, MacDuff further teaches the wire mesh tube includes a sidewall extending between the ends and the liquid enters and exits the sidewalls while passing through the wire mesh (fig. 3).

Regarding claim 53 and 54, MacDuff further teaches the outlet is substantially devoid of flow restrictions (fig. 3); and the inlet has a minimum cross-sectional area of flow and the outlet has a minimum cross-sectional area of flow that is substantially equal to the minimum cross-sectional area of flow of the inlet (fig. 3).

Regarding claim 55, MacDuff teaches the inner cavity of the shell has an interior diameter (fig. 3). Elmi teaches a plurality of coalescing tubes each having a diameter

(fig. 2). The combination of the plurality coalescing tubes of Elmi within the shell of MacDuff would inherently have the diameters of the plurality of tubes be less than the interior diameter of the shell in order for the plurality of tubes to fit.

Regarding claims 56 and 57, how the flow of fluid enters the wire mesh is a process step and does not further structurally limit the apparatus; the velocity of the flow of fluid being greater at the inlet than in the shell is also a process step and does not further structurally limit the apparatus.

Regarding claim 58, MacDuff further teaches the wire mesh tube is spaced apart from an inner wall of the shell (fig. 3)

Regarding claim 59, MacDuff teaches a wire mesh tube includes a plurality of openings but does not teach the size of the openings. Elmi teaches opening in the tubes being 0.25 inches (col. 4, lines 45-52). [W]here the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device, *Gardner v. TEC Systems, Inc.*, 220 USPQ 777 (1984).

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over MacDuff '485 in view of Elmi '132 as applied to claim 1 above, and further in view of Muller US 4 443 346. MacDuff in view of Elmi teaches the plurality of coalescing tubes comprising at least one elongate core element oriented substantially parallel to the plurality of tubes (the tube at the center of the bundle (fig. 2)) but does not teach a substantially

continuous side surface facing in a lateral direction substantially perpendicular to the longitudinal direction. Muller teaches an elongate core element (5) having a longitudinal axis, at least one substantially continuous side surface facing in a lateral direction substantially perpendicular to the longitudinal direction and a plurality of tubes (1) surrounding the core element (5) and oriented substantially parallel to the core element (5) (fig. 1 and 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the assemblies with the teachings of Muller (346) because the central tube serves for supporting the filter tubes (col. 2, line 48).

6. Claims 24-26, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacDuff '485 in view of Elmi '132 as applied to claims 21 and 36 above, and further in view of Mannion et al. US 3 668 822.

Regarding claims 24, 25 and 39, MacDuff in view of Elmi teaches the apparatus of claim 21 and 36 but does not teach the shell further comprising the bottom section including an aperture or a bottom section removably attached. Mannion teaches a coalescing apparatus having a bottom section including an aperture and a bottom section (45) removably attached to the shell (fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the aperture and bottom section of Mannion because the structure provides a means for cleaning out any sediment collected within the apparatus (col. 3, lines 56-72).

Regarding claims 26 and 40, MacDuff in view of Elmi teaches the apparatus of claim 21 and 36 but does not teach the shell further comprising a valve. Mannion

teaches a coalescing apparatus having a bottom section including a valve (45) (fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the valve of Mannion because the structure provides a means for cleaning out any sediment collected within the apparatus (col. 3, lines 56-72).

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over MacDuff '485 in view of Elmi '132' and Muller '346 as applied to claim 3 above, and further in view of Blace US 4 051 033. MacDuff in view of Elmi and Muller teaches the apparatus of claim 3 but does not teach an end cap including a plurality of recesses. Blace teaches an end cap (16) including a plurality of recesses (formed by member (94), fig. 9 and 10, col. 4, lines 28-34) each member (10) being received in a recess. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the end cap of Blace because the end cap secures the tube in place (col. 4, lines 28-34).

8. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over MacDuff '485 in view of Elmi '132 as applied to claim 1 above, and further in view of Basse et al. US 4 985 182. MacDuff in view of Elmi teaches the apparatus of claim 1 but does not teach a wire mesh tube including a projection extending from an inner surface of the tube. Basse teaches a wire mesh tube (10) including a projection (16) extending from an inner surface of the tube (10) and into an interior of the tube (10) (fig. 1). It would have been obvious to one having ordinary skill in the art at the time the invention was

made to use the projection (16) of Basse (182) with the assembly of Wheeler (913) because the projections define flow paths making good ventilation in the cross and longitudinal directions (col. 1, lines 62-66).

Response to Arguments

9. Applicant's arguments with respect to claims 1, 21, 31 and 36 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin Kurtz whose telephone number is 571-272-8211. The examiner can normally be reached on Monday through Friday 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bk 3/17/07

/KS Menon/
Krishnan S Menon
Primary Examiner